

IN THE CLAIMS

1. (Currently Amended) An apparatus for manufacturing a semiconductor device, ~~manufacturing apparatus~~ the apparatus comprising:
a chamber ~~provided with~~ having an a gas inlet and ~~an a gas~~ an outlet ~~of gas~~, said chamber having an upper part with a dome configuration;
a susceptor provided in said chamber to permit a wafer to be placed thereon; and
a non-mesh plasma electrode to which RF power is applied to generate a plasma within said chamber;
wherein said plasma electrode has a dome configuration to cover said upper part, and
wherein the upper polar part of said electrode ~~is cut horizontally to form~~ has an opening.

2. (Original) The semiconductor device manufacturing apparatus according to claim 1, said opening has a width of about 70mm to 300mm.

3. (Currently Amended) A thin film forming method using a semiconductor device manufacturing apparatus comprising a chamber ~~provided with~~ having an a gas inlet and ~~an a gas~~ an outlet ~~of gas~~, said chamber having an upper part with a dome configuration, a susceptor provided in said chamber to permit a wafer to be placed thereon, and a non-mesh plasma electrode to which RF power is applied to generate plasma within said chamber, wherein said plasma electrode has a dome configuration to cover said upper part, and wherein the upper polar part of said electrode ~~is cut horizontally to form~~ has an opening;
~~wherein applying~~ said plasma electrode ~~is applied~~ with RF power of about 700W to 1000W ~~whereby Si_xN_y thin film has good thickness uniformity while containing less amount of hydrogen~~ when using a hydrogen containing plasma to form said a Si_xN_y thin film having a uniform thickness.

4. (Currently Amended) The thin film forming method according to claim 3, said hydrogen containing plasma is formed by a gas mixture ~~mixed gas~~ of SiH₄ and NH₃.

5. (Currently Amended) A thin film forming method using a semiconductor device manufacturing apparatus comprising a chamber ~~provided with~~ having an a gas inlet and ~~an a gas~~ outlet ~~of gas~~, said chamber having an upper part with a dome configuration, a susceptor provided in said chamber to permit a wafer to be placed thereon, and a non-mesh plasma electrode to which RF power is applied to generate plasma within said chamber, wherein said plasma electrode has a dome configuration to cover said upper part, and wherein the upper polar part of said electrode ~~is cut horizontally to form~~ has an opening;

wherein applying said plasma electrode ~~is applied~~ with RF power of about 500W to 1000W ~~whereby said DLC thin film or SiC thin film has good thickness uniformity while containing less amount of hydrogen~~ when using a hydrogen containing plasma to form a DLC thin film or SiC thin film having a uniform thickness.

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6. (Currently Amended) The thin film forming method according to claim 5, said hydrogen containing plasma is formed by a gas mixture ~~mixed gas~~ of CH₄ and H₂ when forming said DLC thin film, and by a gas mixture of SiH₄, CH₄ and H₂ when forming said SiC thin film.